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CS-CASH Pilot Grant: Improving Agricultural Worker Health & Safety Awareness through Multimodal, Case-Based Physician Assistant Education

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CS-CASH Pilot Grant: Improving Agricultural Worker Health & Safety Awareness through Multimodal, Case-Based Physician Assistant Education

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Abstract

The University of Nebraska Medical Center Division of Physician Assistant Education intends to improve health outcomes of patients in Midwest agricultural communities through didactic, clinical, and case-based instruction of Physician Assistant (PA) students

- Aim 1

Increase PA student awareness of agricultural health and safety issues
- Aim 2

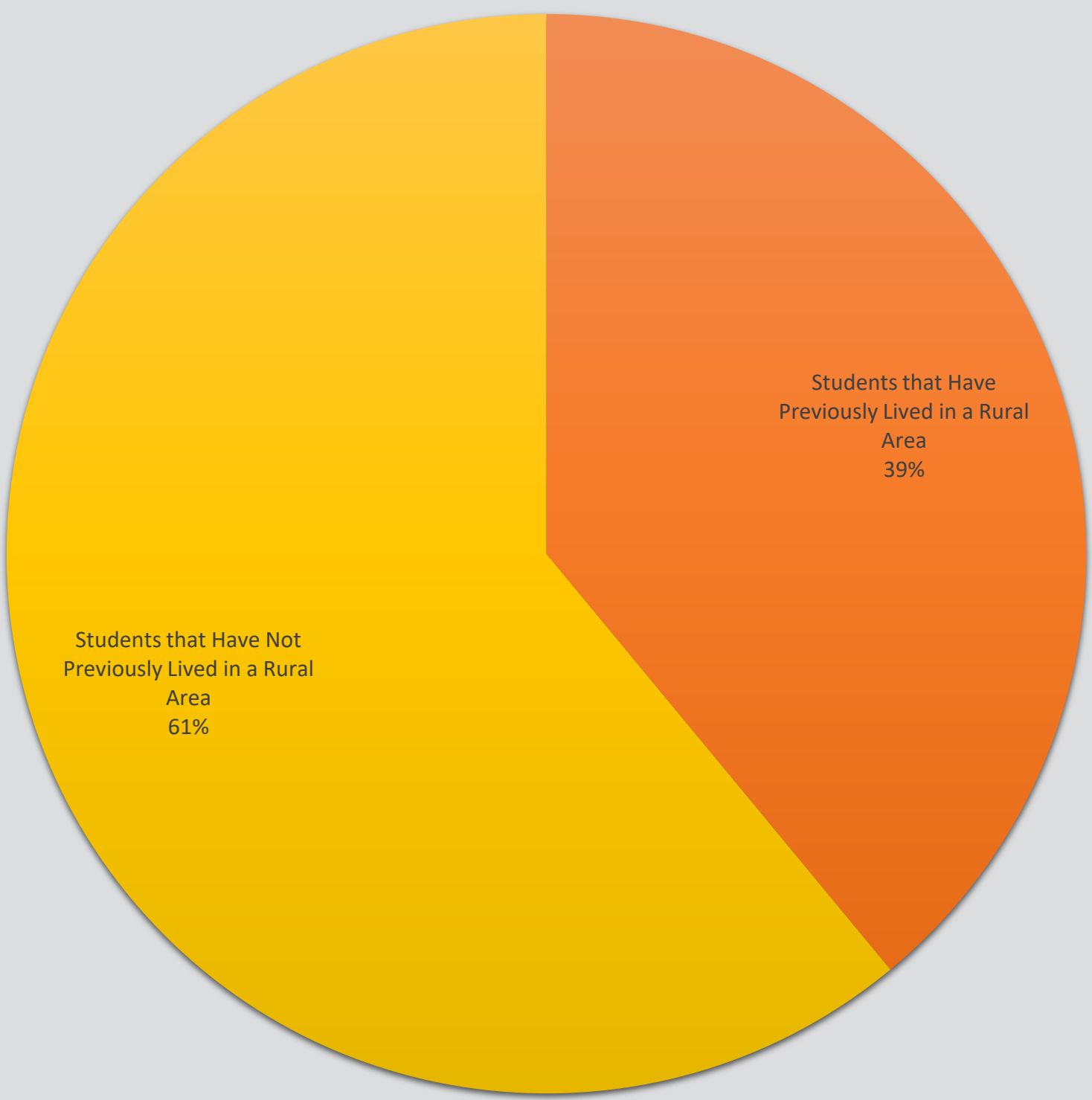
Increase PA student medical knowledge on respiratory health, chemical exposure, and noise-induced hearing loss
- Aim 3

Enhance PA student communication skills with agricultural patients
- Aim 4

Increase patient health care access in agricultural environments

UNMC PA students will undergo learning specific to agricultural-related respiratory health issues, chemical exposures, and hearing loss, including preventative health education and communication with agricultural patient populations. Additionally, students will complete 12 weeks of clinical learning opportunities in a rural, primary care setting.

Percent of Students that Have Previously Lived in a Rural Area



Student Information

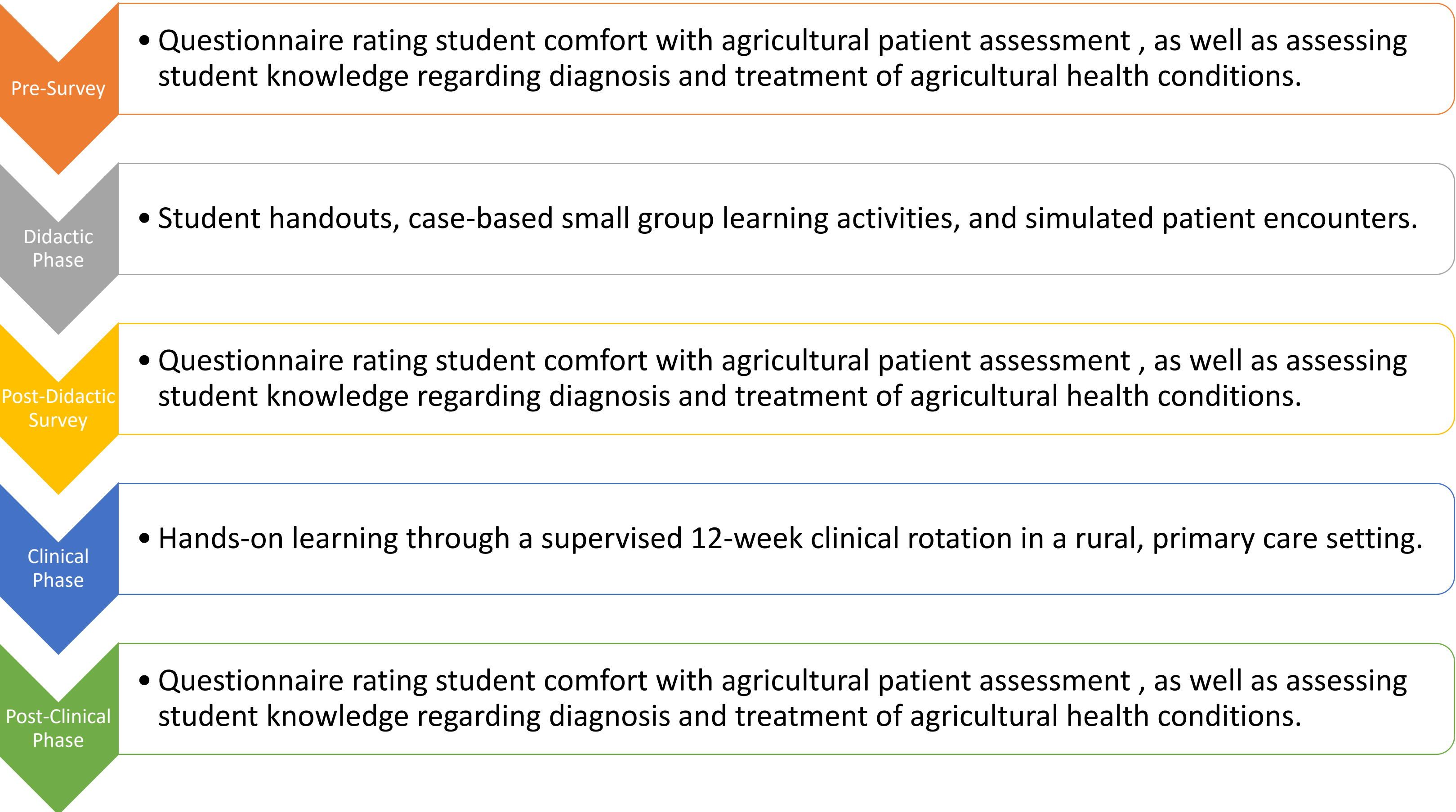
- ✓

66 Students completed the Pre-Didactic Survey
 - 26 of the 66 students had previously lived in a rural area
 - 40 of the 66 students had not previously lived in a rural area
- ✓

14 Students completed the Post-Didactic Survey
 - 3 of 14 students had previously lived in a rural area
 - 11 of 14 students had not previously lived in a rural area
- ❑

30-45 anticipated student responses for the Post-Clinical Survey

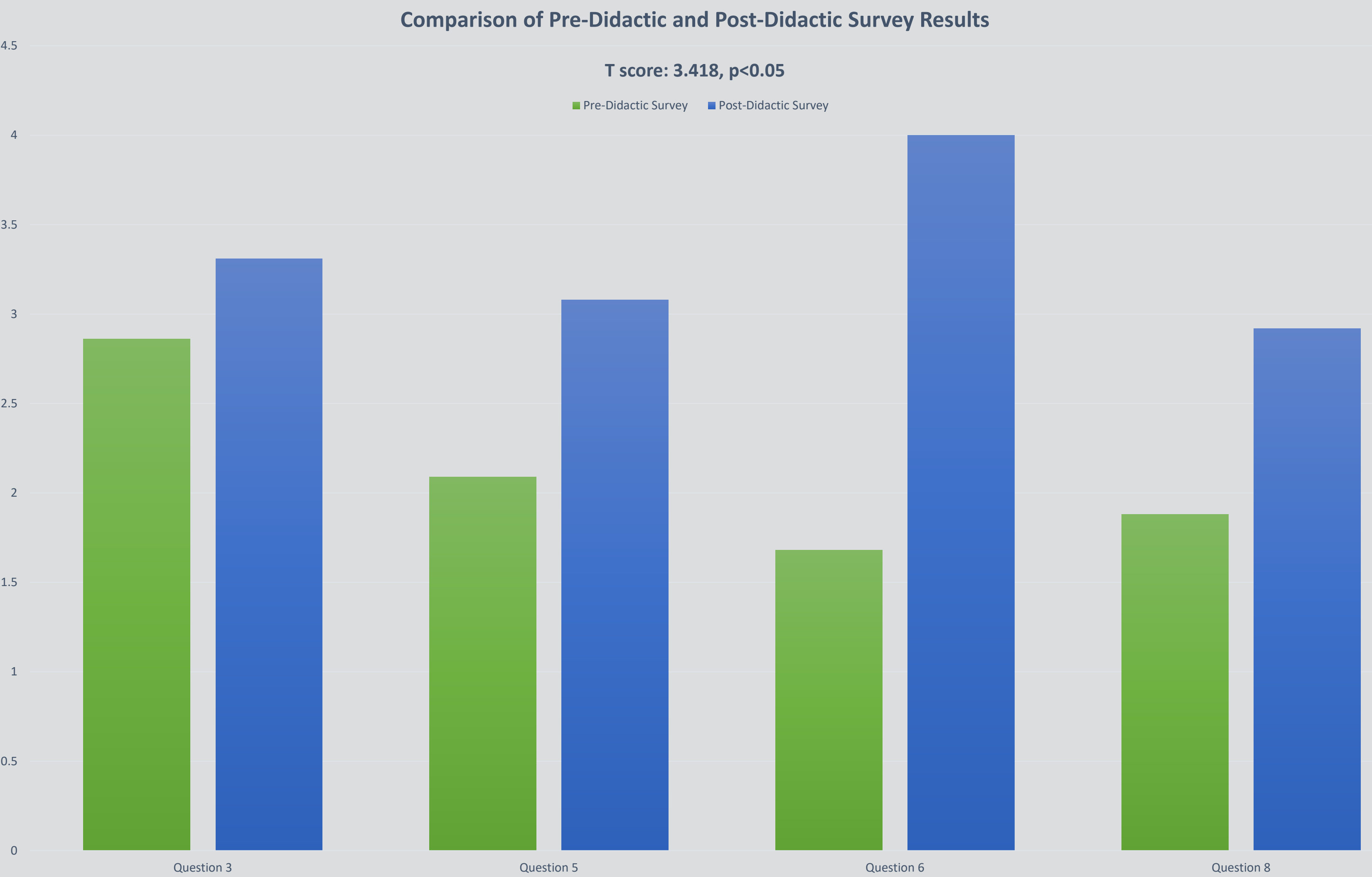
Methods



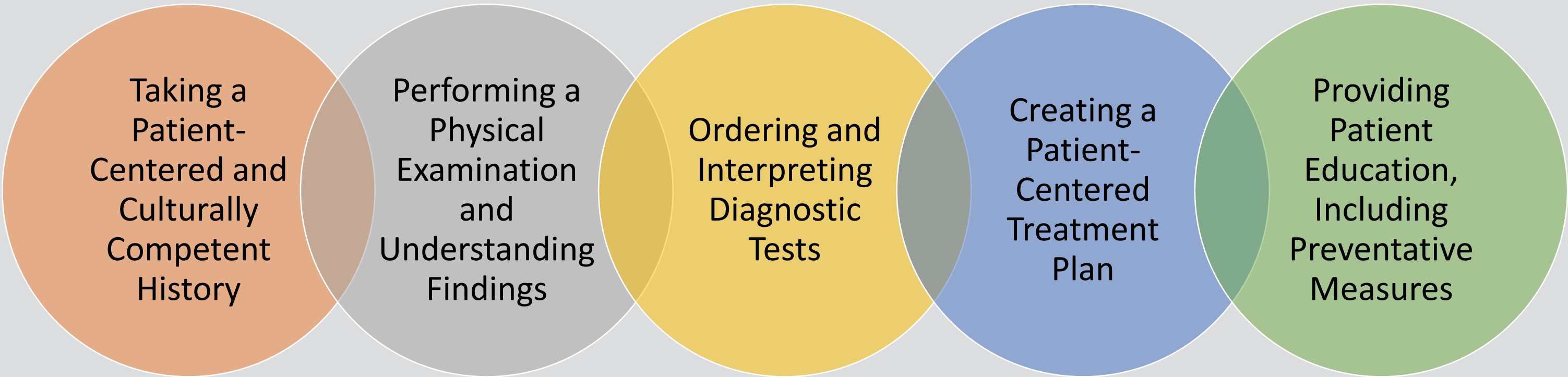
Survey Questions

- Question 3:** How comfortable do you feel taking a comprehensive history on an agricultural patient?
- Question 5:** How confident are you in performing a complete hearing assessment?
- Question 6:** How confident are you in performing a thorough pulmonary examination?
- Question 8:** How comfortable are you in creating a differential diagnosis for a patient with an agricultural chief complaint?
- Rating Scale:** 1: Not at all 2: Slightly 3: Neutral 4: Somewhat 5: Very

Results



Case-Based Learning Skills



Discussion & Future Directions

- Qualitative Student Evaluation Data

Quantitative Student Evaluation Data

Pre & Post Surveys

Typhon Logs of Patient Encounters
- Data collected will guide future endeavors in agricultural health and safety research, as well as continuous curriculum advancement as it pertains to agricultural health. Final data collection will consist of student evaluation data, pre and post surveys, and Typhon patient logs.
- With the assistance of statistical support, data may be utilized to assess outcomes of didactic and clinical Physician Assistant education regarding agricultural health and safety issues, specifically respiratory diagnoses, hearing loss, and chemical exposure. Secondary data collection will also allow for further assessment of Midwest agricultural patient population needs.



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